

4.1.2.9 Site Acceptance Test

The OCG and threat kit REs shall undergo site acceptance test (SAT) at the intended destination range complex. The DD-250 will be signed after successful SAT completion at the intended destination range complex. The site acceptance tests shall include, but not be limited to the following tests.

1. system setup/tear down
2. RE deployment and alignment
3. system slaving (including video tracking)
4. RE remote operation
5. system interface capability
6. environmental proofing (observation within deployment environment)
7. RPU operation
8. system test set
9. ECM receiver function
10. ECM receiver data generation
11. RE reactive mode changes
12. waveform stimulation of target systems

In addition, site acceptance tests will demonstrate required integration with the range complex for normal operation and control of the system.

4.2 Reliability Analysis

A reliability prediction analysis shall be performed for new and modified subsystems to compute subsystem MTBF in operating hours. The analysis shall retain the ground rules and assumptions from the existing UMTE reliability prediction analysis report, RTR-5577.

4.2.1 Reliability Data Sources

Existing UMTE failure rate data shall be utilized to the maximum extent possible, or if unavailable may be estimated based on engineering judgement and/or similarity to existing equipment with adjustments to reflect the UMTE environment.

4.2.2 Reliability Analysis Methodology

The analysis shall assume a basic series failure rate model with 100% duty cycle, but may account for redundancy and/or other duty cycles as appropriate to reflect typical field use. System failure rate shall be computed as the sum of constituent item failure rates, and duty cycles shall be treated as linear failure rate multipliers. Items not totally essential for mission success shall be modeled with a duty cycle that reflects only the essential phase(s) of operation. System MTBF shall be computed as the inverse of failure rate.

4.3 Maintainability Analysis

A maintainability prediction analysis shall be performed to compute the system (geometric) mean corrective maintenance time (MCMT), 60th percentile corrective maintenance time ($CMT_{Z=60\%}$), and 90th percentile maintenance time ($CMT_{Z=90\%}$), in elapsed minutes. The analysis shall assume that the distribution of corrective maintenance times is lognormal. Corrective maintenance time shall include

fault isolation, LRU removal and replacement, and checkout time, but exclude travel time.

4.3.1 Maintainability Data Sources

Existing UMTE corrective maintenance time data shall be utilized to the maximum extent possible, or if unavailable, may be estimated based on engineering judgement and/or similarity to existing equipment with adjustments to reflect the UMTE mechanical design and built-in diagnostic capability.

4.3.2 Maintainability Methodology

The LRU corrective maintenance time data set shall be weighted by failure rate (from the reliability analysis) to reflect the fielded corrective maintenance demand. The weighted data set shall then be transformed to natural logarithms, from which the (log) mean and (log) standard deviation will be used to compute the 50th (mean), 60th, and 90th percentile maintenance times based on the standard normal distribution.

5.0 Transportation and Storage

Transportation and storage of deliverable items shall be IAW with the terms and conditions of the contract.

5.1 Preservation and packaging

Preservation and packaging, and packing shall be IAW MIL-STD-2073-1D (for reference and information only) and the terms of the contract.

6.0 Terms, Abbreviations, and Acronyms

6.1 System Pointing Error Definitions

POINTING ERROR is that spatial difference between the command direction and the direction of the beam axis of the antenna measured in degrees. When used, the command direction shall be defined as to whether the command is applied to the UMTE pedestal or the OCG.

STATIC POINTING ERROR is that pointing error present when the pedestal is statically positioned as a result of a constant, non-changing, input command. Static pointing error shall include, but not be limited to, the following factors.

Pedestal fixed errors - peak errors

Alignment	The angular error due to misalignment of the pedestal vertical axis with local vertical, and pedestal azimuth with true earth coordinates.
Squint	The angular error due to the misalignment of the mechanical axes of the pedestal orthogonal to the beam axis.
Orthogonality	The angular error due to deviation of the pedestal mechanical elevation axis from true perpendicularity with the azimuth axis.
Gravity	The angular error due to structural deformation of the pedestal and

antenna system due to gravity, to include ice loading.

Drift & Offset	The angular error due to the drift and offset characteristics of the servo amplifier.
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Pedestal random errors - variable over time

Backlash	The angular error due to the gear train backlash
Wind	The angular error due to wind loading of the pedestal and antenna. (including wind gusts)
Temperature	The angular error due to solar caused expansion of pedestal and antenna.
Drift & Offset	The angular error due to the drift and offset characteristics of the servo amplifier.
Data Package	The angular error due to data package pick-off and conversion.
Conversion	The angular error due to servo data conversions. (e.g., synchro to digital)

System random errors - variable over time

Coordinate	That angular error resulting from the coordinate transformation of OCG input data. (Shall include global position system (GPS) derived data)
Round-off	That angular error due to system interface round-off.

DYNAMIC POINTING ERROR is that pointing error due to the dynamic effects of the target (velocity and acceleration). Dynamic pointing accuracy shall include, but not be limited to the following factors.

Pedestal dynamic error

Velocity Lag:	The angular error that exist when the servo is operating with a constant velocity.
Acceleration Lag:	The angular error that exist when the servo is operating at a constant acceleration.

System dynamic error

Delay Time	The angular error due to pedestal system position update delays at a constant velocity and acceleration.
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POSITION READOUT ERROR is that spatial error between pedestal position read at system output and the beam axis. Point of readout shall be identified when used. Error factors include pedestal fixed and random errors. When position is referenced at OCG system random errors apply.

6.2 System Verification Definitions

Analysis is verification by proving that an item meets specified requirements by a technical evaluation of equations, charts, graphs, circuit diagrams, and representative data.

Inspection is verification by looking at an item, reviewing descriptive documentation, and comparing the appropriate characteristic with a predetermined standard. This method may require moving or partial disassembly.

Demonstration is verification by operation, movement, or adjustment. Performance is required to make a determination.

Test is verification by operation with sufficient instrumentation for recording and evaluation of a predetermined performance characteristic with tolerances identified.

6.3 Acronyms

AC	Alternating Current
ACTTS	Air Combat Test and Training System
ADVAAA	Advanced Anti-Aircraft Artillery
AFB	Air Force Base
AM	Amplitude Modulation
ATP	Acceptance Test Procedure
BW	Beamwidth
CDR	Critical Design Review
CDRL	Contract Data Requirements List
CLIN	Contract Line Item Number
CPU	Computer Processing Unit
CRT	Cathode Ray Tube
CW	Continuous Wave
dB	Decibel
dBi	Decibels with respect to an isotropic antenna
dBm	Decibels with respect to one milliwatt
dBW	Decibels with respect to one Watt
DDI	Digital Data Interface
Deg	Degree
ECM	Electronic Counter Measures
EMC	Electro Magnetic Compatibility
EMI	Electro Magnetic Interference
EW	Electronic Warfare
FAT	Factory Acceptance Test

GFE	Government Furnished Equipment
GFP	Government Furnished Property
GHz	Gigahertz
GPS	Global Positioning System
GPU	GPS Receiver Unit
HVPS	High Voltage Power Supply
Hz	Hertz
IAW	In Accordance With
ICD	Interface Control Document
IR	Infra Red
JTCTS	Joint Tactical Control Training System
KHz	Kilohertz
KVA	KiloVolt-ampere
KW	Kilowatt
Lbs	Pounds
LOS	Line-Of-Site
LRU	Line Replacement Unit
MDS	Measurement and Debriefing System
MHz	Megahertz
Msec	Milliseconds
MTBF	Mean Time Between Failure
MW	Microwave
μsec	Microsecond
NLT	No Later Than
Nmi	Nautical Mile
nsec	Nanosecond
OCG	Operator Control Group
OCU	Operator Control Unit
PM	Preventative Maintenance
PPS	Pulses Per Second
PPT	Pre-Production Tests
PRF	Pulse Repetition Frequency
PRI	Pulse Recurrence Interval
PW	Pulse Width

RE	Remote Emitter
RECU	Remote Emitter Control Unit
REU	Remote Emitter Unit
RF	Radio Frequency
RFSAM	Radio Frequency Surface-to-Air Missile
RIIS	Range Integrated Instrumentation System
RPU	Remote Power Unit
SAT	Site Acceptance Test
SE	Support Equipment
S/W	Software
TK	Threat Kit
TKN	Threat Kit Number
TxKN	Transmitter Kit Number
UHF	Ultra High Frequency
UMTE	Unmanned Threat Emitter
USAF	United States Air Force
VAC	Volts Alternating Current
VME	Versa Module Europa
VSWR	Voltage Standing-Wave Ratio

Addendum 1, Revision – F
Dated 16 November 2004

to the
System Requirements Document
Unmanned Threat Emitter
AN/TPT-T1(V)
Revision - A
Dated 20 January 2004

Revision History

Revision Basic	Included in Contract DAAHO1-98-C-A004 and Contract F42699-01-C-0025	Jun 01
Revision A	In PR package to contractor	Mar 04
Revision B	In UCA Contract FA8217-04-C-0020. This addendum updates the TK-5 recommendations as approved by ACC and PACAF.	May 04
Revision C	Reflects the SRD technical changes required to accomplish the program objectives. Changes include aircrew debrief, IR camera, and Smokey Sam.	Sep 04
Revision D	Updates the government requirement to remove the 1 each CDU/STS from the RE.	Oct 04
Revision E	Updates areas per PCO requirements. Deleted the IR camera reference to a future requirement. Renumbered error in paragraph numbering.	5 Nov 04
Revision F	Updates areas per PCO & PM requirements. Deleted the Mission & debrief data requirement in paragraph 2.4. Deleted the Smokey Sam Interface requirement in paragraph 2.9. Added paragraph 2.11 to eliminate the requirement for a S/W development work station.	16 Nov 04

1.0 Scope

This addendum to the USAF System Requirements Document for the AN/TPT-T1(V) is required due to fiscal constraints and direction received from ACC/DORR. This addendum, with the amended requirements, takes precedence over the requirements outlined in reference 1 and 2 wherever a conflict exists.

Reference 1: "System Requirements Document, Unmanned Threat Emitter, AN/TPT-T1(V), Revision - Basic", dated 20 January 2004

Reference 2: "Appendix, UMTE Threats, Version 2", dated 7 December 2000

This addendum is applicable only to:

Contract # F42600-01-C-0025 and Contract # FA8217-04-C-0020

2.0 Amended Requirements

Development action to meet some of the UMTE performance requirements identified in the System Requirements Document (SRD), to include the classified appendix, has been delayed. The paragraphs that follow specifically identify the future requirements and amend applicable paragraphs in the SRD. Discussions between the contracting agency, program office, support personnel, and the contractor have identified and resolved problem areas or errors in the SRD. The applicable paragraphs in the SRD and the classified Appendix are also amended by this Addendum.

2.1 Emitter Parametric Performance Requirements

The requirement to meet some of the emitter parametric performance requirements has been delayed. RF performance has been adjusted to meet the legacy system emitter performance where applicable.

2.1.1 Reference 2 document, Table 1-0, (U) UMTE Simulator Requirements Summary. This table in the classified appendix is a quick reference with nominal values listed. The text in the threat specific paragraphs takes precedence over the quick reference values in the table.

2.1.2 Reference 1 Document, paragraph 3.2.1.1.1, under the Tuning heading, the requirement to tune to the RF frequency through the use of a digital interface is not a requirement for these contracts.

2.1.3 Reference 1 document, paragraph 3.2.1.1.1, the description list. The measurement requirements for rise and fall time of the specific signal is amended on a case by case basis. Relief from the 10% to 90% (rise time) and the 90% to 10% (fall time) is indicated, as required, for each amended signal parametric requirement in paragraphs 2.1.4 and subparagraphs in this addendum. If there is no indication of relief for a specific signal, the requirements and description in paragraph 3.2.1.1.1 are unchanged.

2.1.4 The technical parameters for specific threat kit signals, Reference 2 document, are amended in the text to reflect the changes in the paragraphs that follow. All other technical parameters remain unchanged.

5 USC 552(b)(3)

5 USC 552(A)(3)

2.1.4.21 Reference 2 document, paragraph 11 -- The requirements for signal 5A and 5B are amended per direction from ACC/DOR and concurrence of HQ PACAF/DOQQ. The amended requirements are to reduce cost and Non Recurring Engineer effort, to maintain commonality of components for logistics support and sustainment, and maintain reliability and performance standards.

5 USC 552(b)(3)

5 USC 552(a)(3)

2.3 Sector Blanking Requirements

Sector blanking requirements have been identified as a future requirement. The requirement to provide sector blanking is not required for this contract.

2.3.1 Reference 1 document, paragraph 3.2.1.1.4 Remote Emitter Control Unit(RECU). Sector blanking has been identified as a future requirement. The capability to inhibit transmission of RF power based upon sector blanking is not required for this contract.

2.3.2 Reference 1 document, paragraph 3.2.1.2.4 Commander Console Display. Display of sector blanking on the commander console display is not required for this contract.

2.3.3 Reference 1 document, paragraph 3.2.1.2.7 Mission Setup and Configuration. The setup of sector blanking is not required for this contract.

2.3.4 Reference 1 document, paragraph 4.1.2.3.5 OCC PPT. The Operator Control Group (OCG) Pre-Production Testing(PPT) requirement in subparagraph 5, fourth bullet, is not required for this contract.

2.4 Mission and Debriefing Data

The effort to generate post-mission and debriefing data has been identified as a future requirement. Development of this organic capability within the UMTE system is not required for these contracts. The requirement to generate real-time Video and real-time ECM Scope overlays shall remain and these shall be available for recording within the OCG. Clarification and amplification of the post-mission aircrew debriefing product requirements are provided below for future consideration.

2.4.1 Post Mission Aircrew Debriefing Product Requirements.

2.4.2 Reference 1 document, paragraph 3.2.1.2.8 Mission and ECM Debriefing Data. The requirements in the basic text paragraph are unchanged. The requirements of the description list number 2 through 4 are not required for these contracts. The requirements for number 1 in the description list are supplemented in the paragraph below.

2.4.2.1 Sequential Time Tagged Text File of Run History

The Sequential Time Tagged Text File of Run History shall be accomplished via organic UMTE software or the contractor shall develop an appropriate interface to provide all applicable DCC mission data to utilize the capability of a GFE aircrew debriefing system.

If the Run History is accomplished via organic UMTE software it shall be started and stopped by an OCG operator through the input of time or a start/stop command. The time tagged text file shall be configurable at the OCG to be sortie or flight oriented.

- Sortie oriented shall be referenced to a single aircraft. (Many threats versus one aircraft)
- Flight oriented shall be referenced to a flight of aircraft made up of 2 to 8 aircraft. (Many threats versus many aircraft)

This file shall be a formatted text file and shall include all significant events during the run and be a sequential time tagged history. The Run History shall target the aircrew debriefing audience using common terminology and avoid system unique technical terms to the maximum extent possible.

To include:

- run identification, to include the date and time and the target/flight call sign
- run start time
- target pairing time (could be the same as run start time) to include the Remote Emitter number and the Threat Kit number (like RE#1 TK-4)
- Pairing type (like ACMI RTDS pairing for HAA aircraft, RTDS LAA, and Video track)
- paired target identification, include target call sign, range, bearing, altitude, and airspeed.
- RE mode (like standby, acquisition/search, track, launch/fire, detonate, terminate)
- ECM flag (like Noise, noise with AM, R deception, V deception, chaff, maneuvers, terrain mask)
- Reactivity decision points for both ECM and non-ECM engagements
- Paired engagement termination time
- Run termination time
- Comments to be automated and/or manually input by operator

2.4.3 Reference 1 document, paragraph 4.1.2.3.8 ECM Receiver PPT. The ECM receiver PPT testing requirement in item 15 of this paragraph shall not be accomplished for delivered aircrew debriefing products. This testing shall be accomplished at the system level, during Factory Acceptance Testing and/or Site Acceptance Testing utilizing system level OCG resources.

2.5 OCG Environmental Conditions

The operation of the OCG equipment in the normal operating conditions of paragraph 3.2.5.3.2.1 has been identified as a future requirement. The requirement to operate in normal operating conditions is not a requirement for these contracts.

2.5.1 Reference 1 document, paragraph 3.2.5.3.2.2 Benign Operation Conditions. Benign operating conditions are the requirement for the operation of OCG equipment for these contracts.

2.6 Differential GPS Survey Equipment

The delivery by the contractor of Differential GPS Survey Equipment to the government has been identified as a future requirement. Delivery of the equipment is not a requirement for these contracts. The requirement for differential GPS survey equipment shall be addressed in the SERD.

2.6.1 Reference 1 document, paragraph 3.2.1.6 Range Alignment. The delivery of differential GPS survey equipment to the government is not implied by this paragraph and is not a requirement for these contracts. The requirement to provide the equipment for system setup and testing remains valid.

2.6.2 Reference 1 document, paragraph 3.2.1.6.1 Differential GPS Survey Equipment. The delivery of differential GPS survey equipment to the government is not a requirement for these contracts. The requirement to provide the equipment for system setup and testing remains valid.

2.7 Software Testing, Plans, and Reports

2.7.1 Reference 1 document, paragraph 3.2.1.8.3, Software Testing and Plans

Formal Software CSCI testing is satisfied by DRS ISO 2001 compliance. Formal software testing and plans are not required for these contracts.

2.7.2 Reference 1 document, paragraph 4.1.2.2.1

Formal test reports for documentation of software testing is not required for these contracts and shall be accomplished using DRS ISO 2001 procedures.

2.8 IR Camera Requirements

2.8.1 The requirements identified in Reference 1 document, paragraph 3.1, and 3.2.1.9 are supplemented by the following:

- The IR camera shall use a camera mount. The new camera mount, if required, shall be capable of adapting to the existing daylight video camera or the IR camera to be used on the UMTE Upgrade Program Remote Emitters.
- The IR camera optics shall be aligned with the antenna RF bore sight.
- The IR camera shall be capable of tracking a maneuvering F-16 target from a range of .5 to 17 NM, given appropriate atmospheric conditions.
- The IR camera and video tracker shall have the capability to change the field of view through magnification and/or zoom and shall be capable of tracking through a field of view change for a non-maneuvering fighter aircraft.
- The IR camera shall have adequate resolution, sensitivity, and magnification to support day or night tracking of a maneuvering F-16 target in varying range environmental conditions.
- The IR camera shall be controllable at the Remote Emitter through the use of the CDU/STS and at the OCG through the use of screen and joystick controls.
- The IR camera functions that must be controlled locally and remotely shall, as a minimum, be field of view, focus, white/black hot, contrast, and track functions.

2.8.2 The IR camera shall be capable of meeting the operational and non-operational environmental conditions contained in Reference 1 paragraph 3.2.5 and subparagraphs.

2.8.3 The IR camera, once procured and installed, shall be tested per the PPT, FAT, and SAT testing requirements outlined in Reference 1 paragraph 4.1.2 and sub-paragraphs.

2.9 Smokey Sam Interface

Reintroduction of the Smokey Sam Interface has been identified as a future requirement. Development of this interface is not required for these contracts. When the requirement is implemented, the Reference 1 document does not contain Smokey Sam Interface requirements and is supplemented by the following:

2.9.1 The UMTE system shall provide the capability to initiate a launch signal to an external and separate Smokey Sam subsystem. The interface shall be designed to control two relays. One relay shall control the safety function, the Arm/Disarm relay, and the other relay shall control the Smokey Sam launch signal. The capability to control the Arm/Disarm relay and the Launch relay can be internal to the UMTE Remote Emitter or separate and external to the Remote Emitter. The contacts in the relays shall be electrically isolated from the Remote Emitter, normally open, and the contact rating shall be rated at a minimum of 1 Amp, 250 Volts AC.

2.9.2 The Smokey Sam Interface shall provide the capability for an operator to manually initiate a Smokey Sam launch independent of the status of the Remote Emitter and the RE transmitters. This is manual control of the Smokey Sam subsystem.

2.9.3 The Smokey Sam Interface shall provide the capability to initiate a Smokey Sam launch when the -B transmitter radiate command is initiated for a SAM only simulator or the -A transmitter radiate command is initiated for a AAA/SAM simulator and shall function only after the transmitter standby time-out is complete. This is semi-automatic control of the Smokey Sam subsystem.

2.9.4 The Smokey Sam Interface shall provide the capability to initiate a Smokey Sam launch when the -B transmitter radiate command for a SAM only simulator or the -A transmitter radiate command is initiated for a AAA/SAM simulator radiate command is initiated by the Remote Emitter Threat Reactivity Model (TRM). This is automatic control of the Smokey Sam subsystem by the UMTE TRM.

2.9.5 The Smokey Sam Interface design shall provide the future capability to initiate a Smokey Sam launch for a SAM only simulator from an external command and control system. This capability should be similar to the ACMI control of RE modes in the current DCC software implementation.

2.9.6 The Smokey Sam Interface shall provide information to the OCG for inclusion in the Run History debriefing product

2.10 Control Display Unit / System Test Set (CDU/STS) Asset Requirements

The government desires that the previous interpreted or derived requirement that a CDU/STS be a component of each Remote Emitter be removed. The number of CDU/STS units to be delivered will be specifically defined in the contract. The CDU/STS is a critical AN/TPT-T1(V) asset required to locally initialize, setup, and troubleshoot a Remote Emitter and a required asset at the range installation level. The number of CDU/STS assets required for a given range installation will be recommended by the Program Office to the local range management office. To implement this change the derived requirement that a CDU/STS be a part of each Remote Emitter is clarified below.

2.10.1 The derived requirement that a CDU/STS be delivered as a part of each Remote Emitter is removed from any interpretation of paragraphs 3.2.1.1, 3.2.1.1.4, 3.2.1.7 and 3.2.4.2 of the System Requirements Document. This change in interpretation does not change the Remote Emitter design or the indentured drawing tree. The number of CDU/STS units required for delivery of AN/TPT-T1(V) components will be specifically defined in a contract line item number.

2.11 System Software Development Workstation

The delivery of a system software development workstation has been identified as a future requirement. The requirement to deliver a system software development workstation is not a requirement for these contracts. The requirement for a system software development workstation shall be addressed in the SERD.

2.11.1 Reference 1 document, paragraph 3.2.1.8.2 System Software Development Workstation. The contractor is not required to develop or supply a System Software Development Workstation for these contracts.

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CONTRACT ID: 0008
CONTRACT NO.: FA8217-04-C-0020
SYSTEM ITEM: UMTE AN/TPT-T1(V)

SEQUENCE NUMBER	DID/TITLE SOW PARAGRAPH	PAGE NO.
A001	DI-CMAN-80556A CONFIGURATION AUDIT PLAN	
A002	DI-CMAN-80639C ENGINEERING CHANGE PROPOSAL	
A003	DI-CMAN-80640C REQUEST FOR DEVIATION	
A004	DI-CMAN-80641B REQUEST FOR WAIVER	
A005	DI-CMAN-80642C NOTICE OF REVISION	
A006	DI-NDTI-80809B TEST/INSPECTION REPORTS	
A007	DI-SESS-81000B PRODUCT DRAWINGS AND ASSOCIATED LISTS	
A008	DI-ADMN-80925 REVISION TO EXISTING GOVERNMENT DOCUMENT INSTRUCTIONAL MEDIA DESIGN PACKAGE	
A009	DI-ALSS-81530 LOGISTICS MANAGEMENT INFORMATION (LMI) SUMMARIES	
A010	DI-ADMN-80925 REVISION TO EXISTING GOVERNMENT DOCUMENT SOFTWARE DESIGN DOCUMENT	
A011	DI-ADMN-80925 REVISION TO EXISTING GOVERNMENT DOCUMENT SOFTWARE VERSION DESCRIPTION	
A012	DI-IPSC-81447A COMPUTER PROGRAMMING MANUAL	
A013	DI-ALSS-81529 LOGISTICS MANAGEMENT INFORMATION (LMI) DATA PRODUCT(S)	
A014	DI-CMAN-81022C CONFIGURATION AUDIT SUMMARY REPORT	

A015	DI-MNTY-81188 VERIFICATION, DEMONSTRATION, AND EVALUATION PLAN
A016	DI-QCIC-81199 PRODUCT QUALITY ASSURANCE (FAT/PRODUCTION TEST PLAN AND PROCEDURES)
A017	DI-ALSS-81557 SUPPLEMENTAL DATA FOR PROVISIONING (SDFP)
A018	DI-ADMIN-81373 PRESENTATION MATERIAL
A019	DI-IPSC-81431A SYSTEM/SUBSYSTEM SPECIFICATION (CRITICAL ITEM PRODUCT FABRICATION)
A020	DI-IPSC-81443A SOFTWARE USERS MANUAL
A021	DI-ADMIN-81250A CONFERENCE MINUTES
A022	DI-ADMIN-80925 REVISION TO EXISTING GOVERNMENT DOCUMENT (CONTRACTOR'S CONFIGURATION MANAGEMENT PLAN)
A023	DI-CMAN-81254A REQUEST FOR NOMENCLATURE
A024	DI-SAFT-80101B SYSTEM SAFETY HAZARD ANALYSIS REPORT
A025	DI-IPSC-81434A REVISION TO EXISTING GOVERNMENT DOCUMENT INTERFACE REQUIREMENTS SPECIFICATION
A026	DI-FNCL-80912/T PERFORMANCE AND COST REPORT
A027	TM86-01H1 TECHNICAL MANUALS
A028	DI-TMSS-80067B CFEN/CFE NOTICES

17. PRICE GROUP	
18. ESTIMATED TOTAL PRICE	

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CONTRACT DATA REQUIREMENTS LIST (1 Data Item)						Form Approved OMB No. 0704-0188							
The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Department of Defense, Executive Service and Communications Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please do not return your form to the above organization. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.													
A. CONTRACT LINE ITEM NO. 0008		B. EXHIBIT A		C. CATEGORY: TDP <u>X</u> TM _____ OTHER _____									
D. SYSTEM/ITEM UUP, UMTE, AN/TPT-T1(V)			E. CONTRACT/PR NO. FA8217-04-C-0020		F. CONTRACTOR DRS								
1. DATA ITEM NO. A003	2. TITLE OF DATA ITEM REQUEST FOR DEVIATION				3. SUBTITLE								
4. AUTHORITY (Data Acquisition Document No.) DI-CMAN-80640C/T			5. CONTRACT REFERENCE SOO Para 2.0		6. REQUIRING OFFICE OO-ALC/LHRE								
7. DD 250 REQ LT	9. DIST STATEMENT REQUIRED B	10. FREQUENCY ASREQ	12. DATE OF FIRST SUBMISSION SEE BLK 16		14. DISTRIBUTION								
8. APP CODE A		11. AS OF DATE	13. DATE OF SUBSEQUENT SUBMISSION SEE BLK 16		a. ADDRESSEE	b. COPIES							
						Draft	Final						
						Reg	Repro						
16. REMARKS Ref Blk 4: Use DD Form 1694 on all proposed deviations presented to the Government. Ref Blk 8: DCMA will review and approve or disapprove minor deviations within 10 working days after receipt. The Government CCB will review and approve or disapprove critical and major deviations within 45 days after receipt. Re-submittal, if required, is due 30 days after receipt of government comments. Ref Blks 12 and 18: The contractor shall submit the approved or disapproved minor deviation within 10 days after receipt from the Government. Ref Blk 14: (*ACC/YBR-TEAS): Post data and submittal letters on the Government Information Management System (ATIMS). CDRL data will be considered delivered when access for all authorized users is confirmed. General notification will be accomplished via the ATIMS automated notification function. Ref Blk 18: This is a no cost data item.					SEE BLK 16								
										15. TOTAL	0	0	0
					G. PREPARED BY Cindy R. George, LH Data Manager		H. DATE 03/15/2004		I. APPROVED BY Bruce Carlton		J. DATE 03/15/2004		

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

17. PRICE GROUP	
18. ESTIMATED TOTAL PRICE	

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CONTRACT DATA REQUIREMENTS LIST <i>(1 Data Item)</i>						<i>Form Approved</i> OMB No. 0704-0188			
The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Department of Defense, Executive Service and Communications Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please do not return your form to the above organization. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.									
A. CONTRACT LINE ITEM NO. 0008		B. EXHIBIT A		C. CATEGORY: TDP <input checked="" type="checkbox"/> TM <input type="checkbox"/> OTHER <input type="checkbox"/>					
D. SYSTEM/ITEM UUP, UMTE, AN/TPT-T1(V)			E. CONTRACT/PR NO. FA8217-04-C-0020		F. CONTRACTOR DRS				
1. DATA ITEM NO. A006		2. TITLE OF DATA ITEM TEST/INSPECTION REPORTS			3. SUBTITLE				
4. AUTHORITY (Data Acquisition Document No.) DI-NDTI-80809B/T			5. CONTRACT REFERENCE SOO Para 2.0		6. REQUIRING OFFICE OO-ALC/LHRE				
7. DD 250 REQ LT		9. DIST STATEMENT REQUIRED B		10. FREQUENCY ASREQ		12. DATE OF FIRST SUBMISSION SEE BLK 16			
8. APP CODE A		11. AS OF DATE		13. DATE OF SUBSEQUENT SUBMISSION SEE BLK 16		14. DISTRIBUTION			
16. REMARKS Ref Blk 4: Format same as Contract F42600-01-C-0025, CDRL A006 approved format. Ref Blk 10, 12, 13: Report shall be submitted NLT 30 days after the completion of testing event being reported. The Government will approve/disapprove NLT 45 days after receipt. Re-submittal, if required, is due 30 days after receipt of Government comments. Ref Blk 14: (*ACC/YBR-TEAS): Post data and submittal letters on the Government Information Management System (ATIMS). CDRL data will be considered delivered when access for all authorized users is confirmed. General notification will be accomplished via the ATIMS automated notification function.						a. ADDRESSEE		b. COPIES	
						Draft Final Reg Repr			
SEE BLK 16						SEE BLK 16			
15. TOTAL →						0 0 0			
G. PREPARED BY Cindy R. George, LIA Data Manager			H. DATE 03/15/2004		I. APPROVED BY Bruce Carlton		J. DATE 03/15/2004		

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

**TDP OPTION SELECTION WORKSHEET
PRODUCT DRAWINGS AND ASSOCIATED LISTS**

A. CONTRACT NO. FA8217-04-C-0020	B. EXHIBIT/ATTACHMENT NO. A	C. CLIN 0008	D. CDRL DATA ITEM NO. A007
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1. DELIVERABLE PRODUCT (X and complete as applicable.)

<input type="checkbox"/>	a. ORIGINALS (Specify current design activity's full size reproducible drawing or digital data file(s) on which is kept the revision record recognized as official) (Identify specification, type, grade and class, etc.)
<input type="checkbox"/>	b. REPRODUCTIONS (Identify specifications, type, grade and class, etc., and quantity of each)
<input checked="" type="checkbox"/>	c. DIGITAL DATA (Identify specification, exchange media, etc. and specify original (master) or copy) see atch 1

2. CAGE CODE AND DOCUMENT NUMBERS (X one)

<input checked="" type="checkbox"/>	a. CONTRACTOR
<input type="checkbox"/>	b. GOVERNMENT Complete (1) and (2) or (3)

(1) Use CAGE Code	(2) Use Document Numbers	(3) To Be Assigned By:
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3. DRAWING FORMATS AND DRAWING FORMS (X one and complete as applicable)

<input checked="" type="checkbox"/>	a. CONTRACTOR FORMATS. Forms to be supplied by contractor.
<input type="checkbox"/>	b. GOVERNMENT FORMATS. Forms to be supplied by contractor. Samples supplied by (Specify)
<input type="checkbox"/>	c. GOVERNMENT FORMATS. Forms to be supplied as Government Furnished Material by (Specify)

4. TYPES OF DRAWINGS SELECTION (X one)

<input checked="" type="checkbox"/>	a. CONTRACTOR SELECTS	b. GOVERNMENT SELECTS (Specify in Item 9)
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5. ASSOCIATED LISTS (X and complete as applicable)

<input checked="" type="checkbox"/>	a. PARTS LISTS (X one)	<input type="checkbox"/>	(1) Integral	<input checked="" type="checkbox"/>	(2) Separate
<input checked="" type="checkbox"/>	b. DATA LISTS (X one)	<input type="checkbox"/>	(1) Not Required	<input checked="" type="checkbox"/>	(2) Required (Specify levels of assembly) (LRU)
<input type="checkbox"/>	c. INDEX LISTS (X one)	<input type="checkbox"/>	(1) Not Required	<input type="checkbox"/>	(2) Required (Specify levels of assembly)
<input checked="" type="checkbox"/>	d. WIRING LISTS (X one)	<input type="checkbox"/>	(1) Not Required	<input checked="" type="checkbox"/>	(2) Required (Specify levels of assembly)
<input checked="" type="checkbox"/>	e. INDENTURED DATA LISTS (X one)	<input type="checkbox"/>	(1) Not Required	<input checked="" type="checkbox"/>	(2) Required (Specify levels of assembly)
<input type="checkbox"/>	f. APPLICATION LISTS (X one)	<input type="checkbox"/>	(1) Not Required	<input type="checkbox"/>	(2) Required (Specify levels of assembly)

6. DETAILS (X one)

<input checked="" type="checkbox"/>	a. MULTIDETAIL DRAWINGS PERMITTED	b. MONODETAIL DRAWINGS MANDATORY
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7. VENDOR SUBSTANTIATION DATA (X one)

<input checked="" type="checkbox"/>	a. NOT REQUIRED	b. REQUIRED
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8. APPLICABILITY OF STANDARDS. The following Standards apply: (X as applicable)

<input checked="" type="checkbox"/>	a. ASME Y14.100-2000, ENGINEERING DRAWING PRACTICES (COMMERCIAL)	<input checked="" type="checkbox"/>	ASME Y14.100 With Appendices B,C,D,E	<input checked="" type="checkbox"/>	c. ASME Y14.34M, ASSOCIATED LISTS	<input type="checkbox"/>	d. EXISTING STANDARDS DO NOT APPLY
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9. OTHER TAILORING (Attach additional sheets as necessary)

1. See attachment 1 for digital format and metadata instructions

For guidelines see attachment 2.

TDP Option Selection Worksheet (continuation sheet)
Product Drawings and Associated Lists

UMTE AN/TPT- T1(V)

Technical Data Package

Authority: Data Item Description (DID): DI-DRPR-81000A
Contract # FA8217-04-C-0020

1. Deliverable Product – ASME Y14.100-M Appendix B is tailored as follows:
 - a. Digital Data: Contractor shall deliver drawings and associated lists in CAD software format and shall be on a CDROM converted to a tagged image file (tif) format. Book form drawings (separate parts lists, SCD, ect) shall be created and readable in Microsoft Word for Windows (file extension .DOC) or PDF file format. Contractor shall deliver Metadata for drawings and associated lists. Metadata shall be delivered in Microsoft Access 2000.
 - b. Contractor shall deliver sample Drawing files including the associated Metadata file.
 - c. Government will provide a copy of the Microsoft Access 2000 database for media selected. The database will include sample data. Government will provide instructions for preparing the Metadata file.
3. Drawing Formats and Drawing Forms
 - a. Contractor formats are acceptable provided it meets requirements of ASME Y14.1 Signature blocks must comply with ASME Y14.1
4. Type of Drawings
 - a. Contractor selects- providing types of drawings prepared include, but are not limited to: Installation drawings, Assembly drawings, Interface Control drawings. Drawings shall be IAW ASME Y14.24
5. Associated List
 - a. Parts Lists, b. Data Lists, c. Wiring Lists shall be IAW ASME Y14.34M and shall be delivered as digital data. The levels of assembly shall be LRU level.
6. Details
 - a. Multi-detail Drawings permitted and shall be IAW ASME Y14.24.

For guidelines see Technical Data Package Guidance Document List

12 Sept. 2003

**TECHNICAL DATA PACKAGE GUIDANCE
DOCUMENT LIST
ATTACHMENT 2**

1. The following documents are listed for guidance purposes only. This list is not to be construed as a legally binding document.

AS 1290A	01 Jan 1986 (R1991)	Graphic Symbols For Aircraft Hydraulic & Pneumatic Systems
ASME Y14.1	1995 (R2002)	Decimal Inch Drawing Sheet Size & Format
ASME Y14.2M	1992 (R1998)	Line Conventions & Lettering
ASME Y14.3M	1994 (R1999)	Multi & Sectional View Drawings
ASME Y14.4M	1989 (R1999)	Pictorial Drawing
ASME Y14.5M	1994 (R1999)	Dimensioning & Tolerancing
ASME Y14.6	2001 (R1998)	Screw Thread Representation
ASME Y14.6M	1981 (R1998)	Screw Thread Representation (Metric Supplement)
ASME Y14.7.1	1971 (R1998)	Gear Drawing Standards – Part 1 for Spur, Helical, Double Helical & Rack
ASME Y14.7.2	1978 (R1999)	Gear & Spline Drawing Standards – Part 2 Bevel & Hypoid Gears
ASME Y14.8M	1996 (R2002)	Castings & Forgings
ASME Y14.13M	1981 (R1998)	Mechanical Spring Representation
ASME Y14.18M	1986 (R1998)	Optical Parts
ASME Y14.24	1999	Types & Applications Of Engineering Drawings
ASME Y14.34M	1996 (R2002)	Associated Lists

ASME Y14.35M	1997	Revision Of Engineering Drawings & Associated Documents
ASME Y14.36M	1996 (R2002)	Surface Texture
ASME Y14.38	1999	Abbreviations & Acronyms
ASME Y14.38a-2002	2002	ADDENDA to Abbreviations & Acronyms
ASME Y14.100-2000	2001	Engineering Drawing Practices
ASME Y32.4	1977 (R1999)	Graphic Symbols For Plumbing Fixtures For Diagrams Used In Architecture & Building Construction
AWS A2.4	1998	Symbols For Welding & Nondestructive Examination
AWS A3.0	2001	Standard Welding Terms & Definitions Including Terms For Bonding, Brazing, Soldering, Thermal Spraying & Thermal Cutting
Global Drawing Requirements Manual Engineering Documents 15 Inverness Way East Englewood, CO 80112 (800) 854-7179		
IEEE 91A/91	27 Jun 1991 (R1994)	Supplement To IEEE Standard For Graphic Symbols & Logic Functions
IEEE 100	01 Jan 2000	Standard Dictionary Of Electrical & Electronics Terms
IEEE 260.1	01 Jan 1993	American National Standard Letter Symbols For Units Of Measurements (SI Units, Customary Inch-Pound Units, and Certain Other Units) Revision and Re-designation of IEEE Std 260-1978
IEEE 280	01 Jan 1985 (R1997)	Standard Letter Symbols For Quantities Used In Electrical Science & Electrical Engineering

IEEE 315	04 Sep 1975 (1993)	Graphic Symbols For Electrical & Electronics Diagrams (Including Reference Designation Class Designation Letters) CSA Z99-75; ANSI Y32.2-75, IEEE 315-75
IEEE 991	01 Jan 1986 (R1994)	Standard For Logic Circuit Diagrams
IEEE C37.2	10 Dec 1996 (R2001)	Standard Electrical Power System Device Function Numbers & Contact Designations
IEEE Y32.9	01 Jan 1972 (R1989)	Graphic Symbols For Electrical Wiring & Layout Diagrams Used In Architecture & Building Construction
IPC 2221	1 Feb 1998	Generic Standard On Printed Board Design Amendment 1: January 2000
IPC 2615	1 Jul 2000	Printed Board Dimensions & Tolerances
IPC D-350D	1992	Printed Board Description In Digital Form Revision D – July 1992
IPC T-50F	1996	Terms & Definitions For Interconnecting & Packaging Electronic Circuits
DoDD 5220.22	8 Dec 1980	DoD Industrial Security Program
DoDD 5230.24	18 Mar 1987	Distribution Statements On Technical Documents
DoDD 5230.25	6 Nov 1984	Withholding Of Unclassified Technical Data From Public Disclosure
DoDD 5230.25 CH 1	18 Aug 1995	
MIL-HDBK-288B	14 Jan 1991	Review & Acceptance Of Engineering Drawing Practices
MIL-STD-130K	15 Jan 2000	Identification Marking of U.S. Military Property